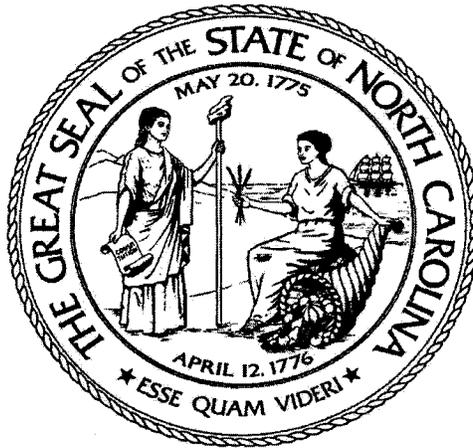


LEGISLATIVE RESEARCH COMMISSION

**DIGITAL LEARNING ENVIRONMENTS
IN PUBLIC SCHOOLS COMMITTEE**

NORTH CAROLINA GENERAL ASSEMBLY



**REPORT TO THE
2013 SESSION
of the
GENERAL ASSEMBLY
OF NORTH CAROLINA**

DECEMBER 13, 2012

A LIMITED NUMBER OF COPIES OF THIS REPORT ARE AVAILABLE FOR
DISTRIBUTION THROUGH THE LEGISLATIVE LIBRARY

ROOMS 2126, 2226
STATE LEGISLATIVE BUILDING
RALEIGH, NORTH CAROLINA 27611
TELEPHONE: (919) 733-7778

OR

ROOM 500
LEGISLATIVE OFFICE BUILDING
RALEIGH, NORTH CAROLINA 27603-5925
TELEPHONE: (919) 733-9390

TABLE OF CONTENTS

LETTER OF TRANSMITTAL	5
LEGISLATIVE RESEARCH COMMISSION MEMBERSHIP	7
PREFACE.....	8
COMMITTEE PROCEEDINGS.....	9
FINDINGS AND RECOMMENDATIONS	14
APPENDICES	
<u>APPENDIX A</u>	
MEMBERSHIP OF THE LRC COMMITTEE ON DIGITAL LEARNING ENVIRONMENTS IN PUBLIC SCHOOLS	17
<u>APPENDIX B</u>	
COMMITTEE CHARGE.....	18
<u>APPENDIX C</u>	
STATUTORY AUTHORITY	19
<u>APPENDIX D</u>	
LEGISLATIVE PROPOSALS.....	20

This page intentionally left blank

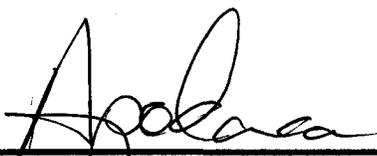
TRANSMITTAL LETTER

January 8, 2013

TO THE MEMBERS OF THE 2013 SESSION
OF THE NORTH CAROLINA GENERAL ASSEMBLY

The Legislative Research Commission herewith submits to you for your consideration its report and recommendations to the 2013 Session of the North Carolina General Assembly. The report was prepared by the Legislative Research Commission's Committee on Digital Learning Environments in Public Schools, pursuant to G.S. 120-30.17(1).

Respectfully submitted,



Senator Thomas M. Apodaca
Co-Chair Designee



Representative Timothy K. Moore
Co-Chair Designee

Co-Chairs
Legislative Research Commission

This page intentionally left blank

LEGISLATIVE RESEARCH COMMISSION MEMBERSHIP

2011 – 2012

President Pro Tempore of the Senate
Senator Philip E. Berger
Co-Chair

Senator Thomas M. Apodaca
Acting Co-Chair

Senator Peter S. Brunstetter
Senator Linda D. Garrou
Senator Martin L. Nesbitt, Jr.
Senator Richard Y. Stevens

Speaker of the House of Representatives
Representative Thomas R. Tillis
Co-Chair

Representative Timothy K. Moore
Acting Co-Chair

Representative John M. Blust
Representative Justin P. Burr
Representative Mike D. Hager
Representative Edith D. Warren

PREFACE

The Legislative Research Commission, established by Article 6B of Chapter 120 of the General Statutes, is the general purpose study group in the Legislative Branch of State Government. The Commission is co-chaired by the President Pro Tempore of the Senate and the Speaker of the House of Representatives and has five additional members appointed from each house of the General Assembly. Among the Commission's duties is that of making or causing to be made, upon the direction of the General Assembly, "such studies of and investigation into governmental agencies and institutions and matters of public policy as will aid the General Assembly in performing its duties in the most efficient and effective manner" (G.S. 120-30.17(1)).

The Legislative Research Commission authorized the study of Digital Learning Environments in Public Schools, under authority of G.S. 120-30.17(1). The Committee was chaired by Senator Dan Soucek and Representative D. Craig Horn, Co-Chairs of the Committee. The full membership of the Committee is listed under Committee Membership. A committee notebook containing the committee minutes and all information presented to the committee will be filed in the Legislative Library by the end of the **2011-2012** biennium.

COMMITTEE PROCEEDINGS

The Legislative Research Commission's Committee on Digital Learning Environments in Public Schools met 4 times after the 2012 Session. The Committee's Charge can be found [here](#). The following is a brief summary of the Committee's proceedings. Detailed minutes and information from each Committee meeting are available in the Legislative Library.

October 4, 2012

The Legislative Research Commission's Committee on Digital Learning Environments in Public Schools held its first meeting at the Friday Institute for Educational Innovation at NC State University.

Governor Bob Wise, President of the Alliance for Excellence in Education and former Governor of West Virginia, addressed the Committee on a national perspective on digital learning. Governor Wise defined digital learning as any instructional practice that effectively uses technology to strengthen a student's learning experience. He spoke about the challenges facing North Carolina and many other states in implementing new curriculum, working with shrinking budgets, developing high-quality teachers, and equipping students for workforce readiness. Governor Wise suggested a process for developing a strategy to infuse digital learning which includes goal-setting, identification of challenges, and looking at the role of teachers, time, and technology, and offered examples of innovative programs in North Carolina and other states that may serve as models.

Myra Best, Special Advisor to the Governor for E-Learning and Innovation, addressed the Committee on historical perspectives on digital learning in North Carolina. Ms. Best spoke about the formation of the Business Education Technology Alliance (BETA) in 2005, and the development of the NC Virtual Public School (NCVPS) and work on school connectivity through the North Carolina Research and Education Network that began in 2006-2007. In 2008, School Connectivity Initiative funding was expanded by the General Assembly. Since 2009, changes have been made to expand the NCVPS and revise its funding formula. The General Assembly has also created a Longitudinal Data System and has funded reading diagnostic digital devices. Ms. Best reviewed some of the lessons learned, including the need to provide access, the necessity of a robust infrastructure, and the critical nature of public-private partnerships. Ms. Best recommended continuing to build on state developments, developing policy structures to support digital learning, and supporting past eLearning Commission recommendations.

Dr. Glenn Kleiman, Executive Director of the Friday Institute for Educational Innovation, spoke next on current digital learning initiatives in North Carolina. Dr. Kleiman discussed the digital transformation of education and how it has begun in North Carolina in a variety of initiatives around the State, including examples from specific public school systems.

Dr. Jeni Corn, Director of Evaluation Programs, Friday Institute for Educational Innovation, followed Dr. Kleiman's introduction with information on evaluations conducted by the Friday Institute of the IMPACT model, 1:1 learning initiatives, the NC Virtual Public School, and school connectivity. Dr. Corn reviewed findings about teaching in these evaluations, including increased use of technology by teachers, moves to collaborative, project-based lessons, and a shift to technology-enhanced modes of assessment. Dr. Corn also discussed findings about students, including growth in student standardized test scores, increase in online course enrollments, increase in student engagement, and development of 21st century learning skills. Dr. Corn also discussed more recent evaluations of the NC Race to the Top Initiative, IMPACT V, and the Golden Leaf Foundation STEM Initiative that include digital learning components. She indicated that the Friday Institute's findings are consistent with research on initiatives in other states in finding increased student engagement, more active and collaborative student activities, and improvement in student achievement over time.

Dr. Tracy Weeks, Chief Academic Officer and Interim Executive Director at the North Carolina Virtual Public School, spoke about NCVPS. Dr. Weeks provided information on the population served and enrollment numbers and distribution. She spoke about the courses offered by NCVPS and the three types of instructional models used; traditional, blended, and recovery. Dr. Weeks discussed the quality of online instructors for the NCVPS and the current funding model. Dr. Weeks concluded with obstacles facing the NCVPS, including the rising costs of technology infrastructure, finding and training qualified teachers to teach online, and school system policies which may limit access to NCVPS courses. Dr. Weeks suggested the NCVPS could play a role in digital learning through expanding course offerings, providing digital content for face to face classrooms, and professional development.

Angela Quick, Deputy Chief Academic Officer, NC Department of Public Instruction, spoke next and discussed statewide programs and progress in digital learning. Ms. Quick provided information on the instructional improvement system to provide tools and resources through one technology platform to administrators, teachers, parents, and students. Ms. Quick also discussed the development of the Statewide longitudinal data system and its multiple partners in providing data on students as they move from pre-kindergarten into the workforce.

Dr. Glenn Kleiman, Executive Director of the Friday Institute for Educational Innovation, concluded the presentation by noting items for consideration in developing digital learning. Dr. Kleiman stated that curriculum and instruction should be updated to incorporate rigorous content standards and 21st century skills and that digital resources and tools should be used to support teaching and learning. Dr. Kleiman also discussed how new types of formative and diagnostic assessments could inform teachers' instructional decisions and how virtual learning could be expanded to curriculum opportunities for students.

The meeting concluded with discussion of the members and chairs regarding future direction and focus of the Committee.

November 8, 2012

The second meeting of the Committee was held at the Mooresville High School in Mooresville Graded School District. Superintendents from four school districts throughout the State were invited to speak on their perspective of their local school administrative units on digital learning.

Dr. Mark Edwards, Superintendent of Mooresville Graded School District, described the process and successes of the district's conversion to digital learning. Currently in the fifth year of digital conversion, the process began as a moral imperative to even the playing field of the digital divide amongst students. Dr. Edwards attributed the success of the conversion to several factors including buy-in from stakeholders, such as teachers, parents, and the at-large community, as well as reliable digital connectivity in the schools, student interest in innovative learning, and collaboration between teachers, students, and administrators. Dr. Edwards stressed that while the Mooresville district is small, he believes this type of conversion could be achieved in other districts regardless of size, particularly if done through zones as other states throughout the country have done.

Dr. Greg Firm, Superintendent of Anson County Schools, spoke next and described the challenges facing his largely rural district. Anson County is the fifth poorest county in the state and comprised of a diverse group of students, about 80% of whom do not have a washer or dryer at home. Dr. Firm stated he firmly believed that technology disrupts the cycle of poverty and implemented a 1:1 initiative after the district was the recipient of a Golden Leaf grant. Over the five years that Anson County has been working on their 1:1 initiative, they have struggled with a community that initially did not embrace the idea that students deserved laptops. While all schools now have some wi-fi, Anson County's biggest challenge with digital learning has been and remains connectivity. Many students do not have wireless capabilities outside of school. In order to combat this, Anson County has worked closely with local laundry mats to provide wi-fi students can use there when doing laundry. Dr. Firm stressed the importance of e-rate and professional development for teachers to learn how to effectively teach with digital tools. Anson County currently sets aside 1.5% of its \$38 million budget for professional development, and would like to do more.

Dr. Valerie Truesdale, Chief Information Officer and Chief Accountability Officer of Charlotte-Mecklenburg School System, and Eric Ward, Principal of West Mecklenburg High School, spoke next about the challenges in Charlotte-Mecklenburg. Dr. Truesdale stressed the challenges in digital conversion between large and small school districts are very different due to the increased number of digital tools needed for districts with more children. Dr. Truesdale commented that infrastructure for wireless access is a basic need in the 21st century and she was particularly concerned with the lack of direction and funding for the required online testing set to occur in 2014. Until schools were told what type of devices would be required for this testing, the necessary hardware could not be bought. She pointed out that for this online testing to occur, the State needs all schools to be uplifted to "good coverage," defined as ability for 30 students in classroom to be

online at one time. Currently, only 15 of 159 schools in Charlotte-Mecklenburg meet such a standard. Mr. Ward spoke next and talked about the infrastructure problems at West Mecklenburg, only one of many high schools in Charlotte. The buildings are from 1951, only 90% of the buildings have some wi-fi, and there is no wi-fi in 13 of the school's mobile units.

Dr. Teri Mosley, Assistant Superintendent, Instructional Services, and Mrs. Jill Reinhardt, Director of Secondary Education/CTE for Surry County Schools, spoke next about their district's experiences, successes, and challenges. Dr. Mosley discussed how Surry County began their digital conversion four years ago with a year of professional development to increase teacher knowledge and buy-in and then started rolling the program out, beginning with 7th graders. Surry County enjoys a business partnership with Surry Telephone, which helps with connectivity concerns. Prior to this conversion, Surry County was considered a strong performing school system, but they have seen continued improvement. Over the past four years, Surry County has seen a higher graduation rate and a decrease in the number of long-term suspensions. Dr. Mosley and Mrs. Reinhardt described Surry County's learning management system, HAIKU, where teachers can share lesson plans and input, which will be helpful with the implementation of the Common Core standards. Dr. Mosley stated that Surry County's biggest challenge was the need for more tech support.

November 26, 2012

Brian Matteson, Fiscal Analyst with the Fiscal Research Division of the General Assembly, provided an overview of the State funding sources for digital learning. Currently, public schools receive State funding through different allotments, each of which have certain rules on allowable uses along with built-in flexibility for local school administrative units (LEAs) to move funds among different allotments. The primary State allotment for digital learning is the State Technology Fund which provides to LEAs funding that can only be used for hardware expenses. In addition, there is the School Connectivity Fund that helps LEAs build broadband capacity. Monies from this Fund cannot be used for hardware or personnel expenses. State textbook allotments can also be used to buy digital materials. Finally, because of budget flexibility granted to LEAs, other monies can be used for digital resources but declines in overall funding have impacted the amount of other monies spent in this area. Other sources of funding for digital learning include federal grants and programs and local and non-profit investments but these are not necessarily on-going or consistent across the State. According to Mr. Matteson, the Public School Building Capital Fund can be used to purchase school technology but this funding has been re-directed to the State's General Fund since 2009. Possible legislative actions include: (i) allowing proceeds from the Education Lottery that are currently limited to school capital needs to also be used for technology and (ii) revising the textbook allotment name to reinforce that those funds can be used for all types of learning resources.

Angela Quick, Deputy Chief Academic Officer at the NC Department of Public Instruction presented on digital textbooks and instructional resources. Ms. Quick

discussed the push to have broadband access throughout the State; 1:1 computing initiatives; and digital resources that currently exist. Next, she presented on upcoming initiatives such as (i) "Home Base", a new portal that will combine student information, standards and curriculum, instructional design and resources, assessments, data analysis and reporting, and professional development and educator evaluation and (ii) LEARN NC Digital Textbooks. Ms. Quick stated that technology has three key categories: (i) there must be strong instruction that helps students learn; (ii) a robust infrastructure with support services to make sure the technology works; and (iii) digital devices that facilitate the learning.

Finally, the Committee discussed possible findings and recommendations for the final report.

December 13, 2012

The Committee considered the recommendations and proposed legislation in the draft report. After discussion of each recommendation, the Committee approved the report for submission to the Legislative Research Commission.

FINDINGS AND RECOMMENDATIONS

Based on information presented to the Legislative Research Commission Study Committee on Digital Learning Environments in Public Schools during its regularly-scheduled meetings, the Committee reports the following findings and makes the following recommendations to the 2013 General Assembly:

1. Instructional Leadership

Effective educators include classroom teachers, instructional technology facilitators, media specialists, teaching assistants, principals, and superintendents committed to creating an environment that uses multiple digital learning resources. These resources are critical to successful digital learning that provides an education that will equip students with 21st Century skills to be prepared for success in both career and college. The Committee finds that high-quality, ongoing professional development and support is a key factor in developing successful digital learning environments.

The Committee commends local school administrative units (LEAs) that have taken the initiative in providing support, resources, and professional development that enables teachers to successfully integrate digital learning into the classroom. The Committee encourages all LEAs to continue to share ideas and resources to expand digital learning Statewide in all classrooms.

The Committee recommends that the General Assembly enact legislation directing the State Board of Education to develop digital competency standards that provide a framework for schools of education, school administrators, and classroom teachers on the needed skills to provide high-quality, integrated digital learning. The Committee also recommends that the General Assembly enact legislation to include digital competencies and related required professional development as an integral component of licensure requirements for all new and current teachers and school administrators by 2017.

See attached [LEGISLATIVE PROPOSAL I: 2013-LEz-1\[v.7\]](#).

2. School Connectivity

Digital learning is increasingly becoming an integral component of a 21st Century education for all students in all schools across North Carolina. Effective digital learning requires a variety of resources, including infrastructure requirements, digital devices, educational software, high-quality teachers, and perhaps most essentially, reliable internet connectivity. The Committee finds that while all LEAs currently have internet access, wireless access on a school building level may be either unavailable or unreliable due to funding or infrastructure limitations.

The Committee also finds that effective digital learning continues after the school day ends, and that access to digital devices and connectivity outside of the school environment are also critical for 21st Century learning. The Committee finds, however, that many LEAs report limited connectivity in their students' homes and community.

Currently, there is no Statewide estimate on the costs for wireless access and sufficient bandwidth to support robust digital learning on a school building level, nor a detailed inventory of the current bandwidth and wireless capabilities of each LEA at the school building level.

The Committee strongly encourages the State Board of Education to survey LEAs on current levels of wireless access and bandwidth capacity, and to provide this survey of information to the House and Senate Appropriation Subcommittees on Education by March 15, 2013.

The Committee further recommends that the General Assembly direct the State Board of Education to establish a standard for sufficient classroom wireless connectivity for a digital learning environment and conduct an in-depth inventory of the wireless access and bandwidth capacity of each public school in the State based on that standard. The State Board of Education should be directed to report to the Joint Legislative Education Oversight Committee by December 1, 2013 on the inventory results and make recommendations on ways to achieve that standard of wireless access and bandwidth in all classrooms. The Committee also recommends that the General Assembly establish a survey of community connectivity and identify ways to assist in expansion of readily accessible internet in all North Carolina counties.

See attached **LEGISLATIVE PROPOSAL II: 2013-LEz-2[v.9]**.

3. Professional Development and Funding Flexibility

The Committee finds that LEAs are seeking creative approaches to financing digital learning within their school system, and that several LEAs have requested more flexibility with use of lottery funds for school construction.

The North Carolina Education Lottery legislation requires the distribution of lottery net proceeds for specific education purposes, including forty percent (40%) of the net proceeds to the Public School Building Capital Fund for school construction. Lottery funds may not currently be used for school connectivity, digital textbooks, digital devices, or professional development for teachers to learn how to most effectively use digital learning for teaching.

The Committee finds that since the lottery's enactment in 2005, the innovation of digital learning and its growing use throughout schools in North Carolina has significantly altered the landscape of public education in the State. While the lottery money is currently designated for other necessary education causes, the Committee finds the expansion of digital learning is also a crucial component to ensure North Carolina's students graduate from high school globally competitive for work and postsecondary education and prepared for life in the 21st Century.

The Committee recommends the General Assembly provide LEAs and counties flexibility for three years to use the percentage of lottery funds allocated for school construction for digital learning needs such as school connectivity, digital textbooks and instructional resources, or digital devices. LEAs that choose to exercise this flexibility

would be required to use a portion of this funding to ensure high-quality, ongoing professional development for teachers, such as the use of instructional technology facilitators at the school building level.

The Committee further recommends that after the initial three years, the General Assembly require LEAs and counties to earn continued flexibility in use of school construction lottery funds for digital learning needs. The Committee recommends that LEAs earn such continued flexibility by demonstrating consistent growth in student outcomes, as determined by the State Board of Education.

See attached **LEGISLATIVE PROPOSAL III: 2013-LEz-3[v.6]**.

4. Digital Textbooks and Instructional Resources and Virtual Learning

The Committee finds there are a number of approaches that LEAs have used to provide or access digital learning devices. These include diverting and restructuring current funding, use of private grants, parental contributions, local funding or local tax revenue, and "bring-your-own-device" policies. Educational materials in the form of digital textbooks and instructional resources have also become increasingly available and can benefit North Carolina students in elementary, middle, and high school grades by providing high-quality, up-to-date information that can be customized for individual students throughout their educational experience. The Committee finds that LEAs may currently use textbook funding for digital instructional materials and digital textbooks. Digital textbooks and instructional resources have proven to be tools that, when used effectively, can raise the level of academic performance of the State's students.

The Committee also finds that the use of online and blended courses can provide greater access to courses for students in subject areas that might otherwise be unavailable in many regions of the State. Online courses and blended instruction may also provide students with opportunities for credit recovery, earning college credit, and coursework in career and technical education.

The Committee encourages LEAs to explore the competitive environment for innovative practices, including virtual learning, that blend technology, digital devices, online learning, and traditional resources in classroom instruction. The Committee strongly urges LEAs to implement available and appropriate high-quality virtual, digital, and instructional resources that align with the curriculum and to provide all students opportunities to enroll in online courses that fulfill graduation requirements.

The Committee also recommends that the General Assembly establish its intent to transition from funding for textbooks, both traditional and digital, to funding for digital materials, including textbooks and instructional resources, to provide educational resources that remain current, aligned with curriculum, and effective for all learners by 2017.

See attached **LEGISLATIVE PROPOSAL IV: 2013-LEz-4[v.5]**.

COMMITTEE MEMBERSHIP

2011-2012

President Pro Tempore of the Senate
Appointments:

Senator Dan Soucek, Co-Chair

Senator Andrew Brock
Senator Malcolm Graham
Senator Ralph Hise
Senator Robert Rucho
Senator Martin Nesbitt

Speaker of the House of Representatives
Appointments:

Representative D. Craig Horn, Co-Chair

Representative Linda Johnson
Representative Marvin Lucas
Representative Jason Saine
Representative Harry Warren
Representative Marcus Brandon

Advisory Member:
Senator Chris Carney

COMMITTEE CHARGE

Digital Learning Environments in Public Schools – The LRC Study Committee on Digital Learning Environments in Public Schools shall study the following:

1. Available forms of digital learning environments in public schools by comparing the cost, infrastructure, technology, maintenance, usability, savings, effectiveness and demonstrated student outcomes associated with various digital learning models found in North Carolina as well as other states like Florida, Arizona, California, Maine, and Texas.
2. Parts 3 and 3A of Article 8 of Chapter 115C of the North Carolina General Statutes as they pertain to school technology to determine if modifications are necessary to best reflect the intent of the General Assembly and provide the necessary opportunities and flexibility to establish digital learning environments in public schools.
3. Viable, cost-effective ways in which the Department of Public Instruction and local school administrative units can offer enriched educational opportunities to students through the use of digital learning tools such as laptops, handheld devices, digital textbooks, and other digital content.

STATUTORY AUTHORITY

NORTH CAROLINA GENERAL STATUTES ARTICLE 6B.

Legislative Research Commission.

§ 120-30.17. Powers and duties.

The Legislative Research Commission has the following powers and duties:

- (1) Pursuant to the direction of the General Assembly or either house thereof, or of the chairmen, to make or cause to be made such studies of and investigations into governmental agencies and institutions and matters of public policy as will aid the General Assembly in performing its duties in the most efficient and effective manner.
- (2) To report to the General Assembly the results of the studies made. The reports may be accompanied by the recommendations of the Commission and bills suggested to effectuate the recommendations.
- (3), (4) Repealed by Session Laws 1969, c. 1184, s. 8.
- (5), (6) Repealed by Session Laws 1981, c. 688, s. 2.
- (7) To obtain information and data from all State officers, agents, agencies and departments, while in discharge of its duty, pursuant to the provisions of G.S. 120-19 as if it were a committee of the General Assembly.
- (8) To call witnesses and compel testimony relevant to any matter properly before the Commission or any of its committees. The provisions of G.S. 120-19.1 through G.S. 120-19.4 shall apply to the proceedings of the Commission and its committees as if each were a joint committee of the General Assembly. In addition to the other signatures required for the issuance of a subpoena under this subsection, the subpoena shall also be signed by the members of the Commission or of its committee who vote for the issuance of the subpoena.
- (9) For studies authorized to be made by the Legislative Research Commission, to request another State agency, board, commission or committee to conduct the study if the Legislative Research Commission determines that the other body is a more appropriate vehicle with which to conduct the study. If the other body agrees, and no legislation specifically provides otherwise, that body shall conduct the study as if the original authorization had assigned the study to that body and shall report to the General Assembly at the same time other studies to be conducted by the Legislative Research Commission are to be reported. The other agency shall conduct the transferred study within the funds already assigned to it.

LEGISLATIVE PROPOSALS

LEGISLATIVE PROPOSAL I

**GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2013**

U

D

BILL DRAFT 2013-LEz-1 [v.7] (11/27)

**(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION)
12/13/2012 11:11:59 AM**

Short Title: Digital Learning Competencies/School Emp'ees. (Public)

Sponsors: (Primary Sponsor).

Referred to:

A BILL TO BE ENTITLED

AN ACT DIRECTING THE STATE BOARD OF EDUCATION TO DEVELOP AND IMPLEMENT DIGITAL LEARNING STANDARDS FOR TEACHERS AND SCHOOL ADMINISTRATORS, AS RECOMMENDED BY THE LEGISLATIVE RESEARCH COMMISSION STUDY COMMITTEE ON DIGITAL LEARNING ENVIRONMENTS IN PUBLIC SCHOOLS.

Whereas, digital learning environments are essential for equipping students with 21st Century skills and preparing them for success in both career and college; and

Whereas, effective educators, including classroom teachers, instructional technology facilitators, media specialists, teaching assistants, principals, and superintendents, must be committed to creating an environment that uses multiple digital learning resources; and

Whereas, high-quality, ongoing professional development and support are key factors in developing successful digital learning environments; and

Whereas, some North Carolina local school administrative units (LEAs) have taken the initiative to provide support, resources, and professional development that enable teachers to successfully integrate digital learning into the classroom; and

Whereas, some of these initiatives have resulted in remarkable gains in student performance; and

Whereas, it is essential that LEAs continue to share ideas and resources on digital learning and that digital learning be implemented in all classrooms in the State; Now, therefore,

The General Assembly of North Carolina enacts:

SECTION 1. G.S. 115C-12 is amended by adding a new subdivision to read: **"§ 115C-12. Powers and duties of the Board generally.**

The general supervision and administration of the free public school system shall be vested in the State Board of Education. The State Board of Education shall establish policy for the system of free public schools, subject to laws enacted by the General

Appendix D

1 Assembly. The powers and duties of the State Board of Education are defined as
2 follows:

3
4 "(40) Duty to Develop and Implement Digital Competency Standards. – The
5 State Board of Education shall develop digital competency standards
6 to provide a framework for schools of education, school
7 administrators, and classroom teachers on the needed skills to provide
8 high-quality, integrated digital learning. Beginning with the 2017-2018
9 school year, the State Board shall include digital competencies and
10 related required professional development as an integral component of
11 initial licensure and licensure renewal requirements for teachers and
12 school administrators."

13 **SECTION 2.** This act is effective when it becomes law.
14

LEGISLATIVE PROPOSAL II

**GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2013**

U

D

BILL DRAFT 2013-LEz-2 [v.9] (11/27)

**(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION)
12/3/2012 3:57:35 PM**

Short Title: Internet Access for Public Schools. (Public)

Sponsors: (Primary Sponsor).

Referred to:

A BILL TO BE ENTITLED

1 AN ACT PROVIDING FOR AN INVENTORY OF INFRASTRUCTURE TO
2 SUPPORT ROBUST DIGITAL LEARNING IN THE PUBLIC SCHOOLS AND
3 AN INVENTORY OF INTERNET ACCESS IN ALL NORTH CAROLINA
4 COUNTIES, AS RECOMMENDED BY THE LEGISLATIVE RESEARCH
5 COMMISSION STUDY COMMITTEE ON DIGITAL LEARNING
6 ENVIRONMENTS IN PUBLIC SCHOOLS.
7

8 Whereas, digital learning is becoming an integral component of a 21st
9 Century education for all students in all schools across North Carolina; and

10 Whereas, effective digital learning requires a variety of resources, including
11 infrastructure requirements, digital devices, educational software, high-quality teachers,
12 and perhaps most essentially, reliable internet connectivity; and

13 Whereas, while all LEAs currently have internet access, wireless access on a
14 school building level may be either unavailable or unreliable due to funding or
15 infrastructure limitations; and

16 Whereas, effective digital learning continues after the school day ends, and
17 access to digital devices and connectivity outside of the school environment are also
18 critical for 21st Century learning; and

19 Whereas, many local school administrative units (LEAs) report limited
20 connectivity in their students' homes and community; and

21 Whereas, currently, there is no Statewide estimate on the costs for wireless
22 access and sufficient bandwidth to support robust digital learning on a school building
23 level, nor a detailed inventory of the current bandwidth and wireless capabilities of each
24 LEA at the school building level; Now, therefore,
25 The General Assembly of North Carolina enacts:

26 **SECTION 1.(a)** The State Board of Education shall establish a standard for
27 sufficient classroom wireless connectivity for a digital learning environment and

Appendix D

1 conduct an inventory of the wireless access and bandwidth capacity of each public
2 school in the State based on that standard.

3 The State Board of Education shall report to the Joint Legislative Education
4 Oversight Committee and to the Joint Legislative Committee on Information
5 Technology by December 1, 2013 on the inventory results, its recommendations on
6 ways to achieve a sufficient standard of wireless access and bandwidth in all
7 classrooms, and the cost of achieving that standard.

8 **SECTION 1.(b)** There is appropriated from the General Fund to the
9 Department of Public Instruction the sum of one hundred thousand dollars (\$100,000)
10 for the 2012-2013 fiscal year to implement the provisions of this section.

11 **SECTION 2.** The Department of Commerce shall conduct a survey of
12 currently available and planned community broadband connectivity and identify ways to
13 assist in the expansion of readily accessible internet in all North Carolina counties. The
14 Department shall report to the Joint Legislative Education Oversight Committee and to
15 the Joint Legislative Committee on Information Technology by December 1, 2013 on
16 the survey results and make recommendations on ways to expand access across the
17 State and the cost of doing so.

18 **SECTION 3.** Section 1(b) of this act becomes effective July 1, 2013. The
19 remainder of this act is effective when it becomes law.

20

LEGISLATIVE PROPOSAL III

**GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2013**

U

D

BILL DRAFT 2013-LEz-3 [v.6] (11/27)

**(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION)
12/3/2012 3:58:30 PM**

Short Title: Lottery Funds Used for Digital Learning. (Public)

Sponsors: (Primary Sponsor).

Referred to:

A BILL TO BE ENTITLED

AN ACT AUTHORIZING THE USE OF SOME LOTTERY FUNDS TO EXPAND DIGITAL LEARNING IN THE PUBLIC SCHOOLS, AS RECOMMENDED BY THE LEGISLATIVE RESEARCH COMMISSION STUDY COMMITTEE ON DIGITAL LEARNING ENVIRONMENTS IN PUBLIC SCHOOLS.

Whereas, local school administrative units (LEAs) are seeking creative approaches for financing digital learning within their school system; and

Whereas, the North Carolina Education Lottery legislation requires the distribution of lottery net proceeds for specific education purposes, including forty percent (40%) of the net proceeds to the Public School Building Capital Fund for school construction; and

Whereas, lottery funds may not currently be used for school connectivity, digital textbooks, digital devices, or professional development for teachers to learn how to most effectively use digital learning for teaching; and

Whereas, several LEAs have requested more flexibility with use of lottery funds for school construction; and

Whereas, since the lottery's enactment in 2005, the innovation of digital learning and its growing use throughout schools in North Carolina have significantly altered the landscape of public education in the State; and

Whereas, while the lottery money is currently designated for other necessary education causes, the expansion of digital learning is also a crucial component to ensure North Carolina's students graduate from high school globally competitive for work and postsecondary education and prepared for life in the 21st Century; Now, therefore, The General Assembly of North Carolina enacts:

SECTION 1.(a) G.S. 115C-546.2(d) reads as rewritten:

"(d) Monies transferred into the Fund in accordance with Chapter 18C of the General Statutes shall be allocated for capital projects for school construction projects as follows:

- 1 (1) A sum equal to sixty-five percent (65%) of those monies transferred in
2 accordance with G.S. 18C-164 shall be allocated on a per average
3 daily membership basis according to the average daily membership for
4 the budget year as determined and certified by the State Board of
5 Education.
- 6 (2) A sum equal to thirty-five percent (35%) of those monies transferred in
7 accordance with G.S. 18C-164 shall be allocated to those local school
8 administrative units located in whole or part in counties in which the
9 effective county tax rate as a percentage of the State average effective
10 tax rate is greater than one hundred percent (100%), with the following
11 definitions applying to this subdivision:
- 12 a. "Effective county tax rate" means the actual county rate for the
13 previous fiscal year, including any countywide supplemental
14 taxes levied for the benefit of public schools, multiplied by a
15 three-year weighted average of the most recent annual sales
16 assessment ratio studies.
- 17 b. "State average effective tax rate" means the average effective
18 county tax rates for all counties.
- 19 c. "Sales assessment ratio studies" means sales assessment ratio
20 studies performed by the Department of Revenue under
21 G.S. 105-289(h).
- 22 (3) No county shall have to provide matching funds required under
23 subsection (c) of this section.
- 24 (4) A county may use monies in this Fund to pay for school construction
25 projects in local school administrative units and to retire indebtedness
26 incurred for school construction projects.
- 27 (5) ~~A county may not use monies in this Fund to pay for school~~
28 ~~technology needs.~~ For July 1, 2012 through June 20, 2016, a county
29 may use monies in this Fund for digital learning needs such as school
30 connectivity, digital textbooks and instructional resources, or digital
31 devices. A county that uses these funds for digital learning needs shall
32 also use a portion of the funds to ensure high-quality, ongoing
33 professional development for teachers.
- 34 Effective July 1, 2016, a county may use monies in this Fund for
35 digital learning needs only if the State Board of Education determines
36 that the local school administrative unit has demonstrated consistent
37 improvement and growth in student outcomes."

38 **SECTION 2.** This act is effective when it becomes law.
39

LEGISLATIVE PROPOSAL IV

**GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2013**

U

D

BILL DRAFT 2013-LEz-4 [v.5] (11/27)

**(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION)
12/3/2012 3:59:52 PM**

Short Title: Transition to Digital Learning in Schools. (Public)

Sponsors: (Primary Sponsor).

Referred to:

A BILL TO BE ENTITLED

1 AN ACT STATING THE INTENT OF THE GENERAL ASSEMBLY TO
2 TRANSITION FROM FUNDING TEXTBOOKS TO FUNDING DIGITAL
3 LEARNING IN THE PUBLIC SCHOOLS, AS RECOMMENDED BY THE
4 LEGISLATIVE RESEARCH COMMISSION STUDY COMMITTEE ON
5 DIGITAL LEARNING ENVIRONMENTS IN PUBLIC SCHOOLS.
6

7 Whereas, local school administrative units (LEAs) have used a number of
8 approaches to provide or access digital learning devices; and

9 Whereas, these approaches include the diversion and restructuring of current
10 funding, use of private grants, parental contributions, local funding, and "bring-your-
11 own-device" policies; and

12 Whereas, educational materials in the form of digital textbooks and
13 instructional resources have also become increasingly available and can benefit North
14 Carolina students in elementary, middle, and high school grades by providing high-
15 quality, up-to-date information that can be customized for individual students
16 throughout their educational experience; and

17 Whereas, LEAs may currently use textbook funding for digital instructional
18 materials and digital textbooks; and

19 Whereas, digital textbooks and instructional resources have proven to be tools
20 that, when used effectively, can raise the level of academic performance of the State's
21 students; and

22 Whereas, the use of online and blended courses can provide greater access to
23 courses for students in subject areas that might otherwise be unavailable in many
24 regions of the State; and

25 Whereas, online courses and blended instruction may also provide students
26 with opportunities for credit recovery, earning college credit, and coursework in career
27 and technical education; and

Appendix D

1 Whereas, LEAs should explore the competitive environment for innovative
2 practices, including virtual learning, that blend technology, digital devices, online
3 learning, and traditional resources in classroom instruction; and

4 Whereas, LEAs should implement available and appropriate high-quality
5 virtual, digital, and instructional resources that align with the curriculum; Now
6 therefore,

7 The General Assembly of North Carolina enacts:

8 **SECTION 1.** It is the intent of the General Assembly to transition from
9 funding for textbooks, both traditional and digital, to funding for digital materials,
10 including textbooks and instructional resources, to provide educational resources that
11 remain current, aligned with curriculum, and effective for all learners by 2017.

12 **SECTION 2.** This act is effective when it becomes law.
13